01-822

IN THE CLAIMS

1. (currently amended) A method for planarizing a surface of an electrically conductive layer on a substrate, where the surface of the electrically conductive layer has relatively high features and relatively low features, the method comprising the steps of:

applying a viscous material to the surface of the electrically conductive layer, whereby at least the relatively low features are covered by the viscous material,

immersing the substrate in an electrically conductive solution that does not contain appreciable amounts of the viscous material, which immersing occurs after the viscous material has been applied to the surface of the electrically conductive layer,

applying an electrical potential between the electrically conductive layer and an electrode within the electrically conductive solution, whereby reaction kinetics favor erosion of the electrically conductive layer, and

agitating the electrically conductive solution~~, thereby~~ to a degree known to selectively uncover~~ing at least~~ features that are relatively high to a desired degree, and thereby preferentially planarizing at least the features that are relatively high.

2. (original) The method of claim 1 wherein the viscous material is a liquid.

3. (original) The method of claim 1 wherein the viscous material is electrically conductive.

4. (original) The method of claim 1 wherein the viscous material is glycerol.

5. (currently amended) ~~The method of claim 1~~ A method for planarizing a surface of an electrically conductive layer on a substrate, where the surface of the electrically conductive layer has relatively high features and relatively low features, the method comprising the steps of:

applying a viscous material to the surface of the electrically conductive layer, whereby at least the relatively low features are covered by the viscous material, wherein the viscous material is a silicone oil,

immersing the substrate in an electrically conductive solution,

applying an electrical potential between the electrically conductive layer and an electrode within the electrically conductive solution, whereby reaction kinetics favor erosion of the electrically conductive layer, and

agitating the electrically conductive solution, thereby selectively uncovering at least features that are relatively high, and thereby preferentially planarizing at least the features that are relatively high.

6. (currently amended) The method of claim ~~1~~ 5 wherein the viscous material has a viscosity of at least about five centipoise.

7. (currently amended) The method of claim ~~1~~ 5 wherein the viscous material is the electrically conductive solution.

8. (currently amended) The method of claim ~~1~~ 5 wherein the viscous material is applied by dipping.

9. (currently amended) ~~The method of claim 1~~ A method for planarizing a surface of an electrically conductive layer on a substrate, where the surface of the electrically conductive layer has relatively high features and relatively low features, the method comprising the steps of:

applying a viscous material to the surface of the electrically conductive layer, whereby at least the relatively low features are covered by the viscous material, wherein the viscous material is applied by one of swabbing and spinning onto the surface of the electrically conductive layer,

immersing the substrate in an electrically conductive solution,

applying an electrical potential between the electrically conductive layer and an electrode within the electrically conductive solution, whereby reaction kinetics favor erosion of the electrically conductive layer, and

agitating the electrically conductive solution, thereby selectively uncovering at least features that are relatively high, and thereby preferentially planarizing at least the features that are relatively high.

10. (canceled)

11. (currently amended) The method of claim ~~1~~ 5 wherein the electrically conductive layer is copper.

12. (currently amended) The method of claim ~~1~~ 5 wherein the substrate is formed of silicon.

13. (currently amended) The method of claim ~~1~~ 5 wherein the agitation is produced by stirring the electrically conductive solution.

14. (original) ~~The method of claim 1, further comprising the steps of:~~ A method for planarizing a surface of an electrically conductive layer on a substrate, where the surface of the electrically conductive layer has relatively high features and relatively low features, the method comprising the steps of:

applying a viscous material to the surface of the electrically conductive layer, whereby at least the relatively low features are covered by the viscous material,

immersing the substrate in an electrically conductive solution,

applying an electrical potential between the electrically conductive layer and an electrode within the electrically conductive solution, whereby reaction kinetics favor erosion of the electrically conductive layer,

agitating the electrically conductive solution, thereby selectively uncovering at least features that are relatively high, and thereby preferentially planarizing at least the features that are relatively high,

increasing the agitation as the relatively high features are planarized, thereby selectively uncovering features that are relatively low, and

thereby planarizing the features that are relatively low.

15. (original) The method of claim 14, wherein planarization of the features that are relatively high is accomplished at a first current density and planarization of the features that are relatively low is accomplished at a second current density.

16. (original) The method of claim 15, wherein the first current density is greater than the second current density.

17. (original) A method for planarizing a surface of an electrically conductive layer on a substrate, where the surface of the electrically conductive layer has features that are at least one of relatively closely spaced, relatively broadly spaced, relatively high, and relatively low, the method comprising the steps of:

applying a viscous material to the surface of the electrically conductive layer, whereby at least the relatively low features are covered by the viscous material,

immersing the substrate in an electrically conductive solution,

applying an electrical potential between the electrically conductive layer and an electrode within the electrically conductive solution, whereby reaction kinetics favor erosion of the electrically conductive layer,

agitating the electrically conductive solution, thereby selectively uncovering at least features that are relatively high, and thereby preferentially planarizing at least the features that are relatively high, and preferentially protecting features that are both relatively low and relatively broad,

increasing the agitation as the relatively high features are planarized, thereby selectively uncovering features that are relatively low, and

thereby planarizing the features that are relatively low.

18. (original) The method of claim 17 wherein the electrically conductive layer is copper.

19. (canceled)

20. (canceled)